



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

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### FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("The Department") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

**ISSUED TO:**

Millennium Power Partners, L.P.  
10 Sherwood Lane  
Charlton, MA 01507

**INFORMATION RELIED UPON:**

Application No. W019914  
Transmittal No. W019914  
Transmittal No. X272798

**FACILITY LOCATION:**

Millennium Power Partners, L.P.  
10 Sherwood Lane  
Charlton, MA 01507-0588

**FACILITY IDENTIFYING NUMBERS:**

SSEIS ID: AQCR 118 PLANT ID 281  
FMF FAC NO. 342837  
FMF RO NO. 287921

**NATURE OF BUSINESS:**

Electrical Power Generation

**STANDARD INDUSTRIAL CODE (SIC):**

4911

**RESPONSIBLE OFFICIAL:**

Name: Dale Lebsack  
Title: Vice President

**FACILITY CONTACT PERSON:**

Name: Mark Winne  
Title: Plant Manager  
Phone: (508) 248-0311

**This operating permit shall expire on March 25, 2010.**

For the Department of Environmental Protection,

This final document copy is being provided to you electronically by the  
Department of Environmental Protection. A signed copy of this document  
is on file at the DEP office listed on the letterhead.

Roseanna E. Stanley, Permit Chief

December 29, 2016

Date

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## **SPECIAL CONDITIONS FOR OPERATING PERMIT**

This Operating Permit expired on March, 25, 2010. However, MassDEP received Millennium Power's Operating Permit Renewal Application (Transmittal No X229140) on September 18, 2009, therefore, Millennium Power Partners, LP may continue to operate under its Application Shield in accordance with 310 CMR 7.00: Appendix C(11) until MassDEP takes final action on the Application.

A legend to Abbreviated Terms found in the following Tables is located in Section 28 of the Operating Permit.

### **1. PERMITTED ACTIVITIES**

In accordance with the provisions of 310 CMR 7.00: Appendix C and applicable rules and regulations, the Permittee is authorized to operate the air emission unit as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00:Appendix C (5)(h) and (i). The unit described in Table 1 is subject to the terms and conditions shown in Sections 4, 5, and 6 and to other terms and conditions as specified in this permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this permit.

### **DESCRIPTION OF FACILITY AND OPERATIONS**

The Permittee is named Millennium Power Partners, L.P. with a place of business located at 10 Sherwood Lane, Charlton, Massachusetts operating an electric generating facility. The power generating facility consists of a 230 MW natural gas-distillate oil fired combustion turbine generator, an unfired exhaust heat recovery steam generator, a nominal 130 MW steam turbine generator, a wet mechanical draft cooling tower, a water treatment system and auxiliary equipment. The hot exhaust gases exiting the turbine pass through the unfired heat recovery steam generator (HRSG), which is used to heat the gases to produce steam for use in the steam turbine generator.

The turbine generator utilizes natural gas as the primary fuel at a rate of 2,534,000 cubic feet per hour while operated at 100% rated capacity. Backup fuel is distillate oil with a sulfur content not in excess of 0.05 percent by weight at a rate of 20,300 gallons per hour at 100% rated capacity. The fuel is stored in a 1.2 million gallon above ground storage tank, which is physically limited to 950,000-gallon capacity.

Major auxiliary equipment associated with the facility includes a control room, a carbon monoxide (CO) catalyst, an selective catalytic reduction (SCR) system, feed water and cooling water pumps, distillate oil and ammonia storage tanks, cooling tower, a continuous emission monitoring system (CEMS) and a 500 HP emergency diesel fire pump. The Permittee uses CO catalyst followed by an ammonia injection grid and SCR catalyst in the HRSG for the control of Carbon Monoxide and Oxides of Nitrogen respectively.

The emissions from the electric generating facility are emitted through a steel stack, the top of which is 225 feet above ground level with an inside exit diameter of 19 feet which provides for a maximum exit velocity of 89 feet per second at a temperature of 242° F.

## **2. EMISSION UNIT IDENTIFICATION**

The following emission unit (Table 1) is subject to and regulated by this operating permit:

Table 1			
EMISSION UNIT (EU#)	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
EU#1	Westinghouse Model 501G Combustion Turbine Generator	2,534 MMBtu/hr @ 60°F	Selective Catalytic Reduction (SCR), Carbon Monoxide (CO) Catalyst

## **3. IDENTIFICATION OF EXEMPT ACTIVITIES**

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C (5)(h):

Table 2	
DESCRIPTION OF CURRENT EXEMPT ACTIVITIES	REASON
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the Department's Regional Office.	310 CMR 7.00: Appendix C(5)(h)

## **4. APPLICABLE REQUIREMENTS**

### **A. EMISSION LIMITS AND RESTRICTIONS**

The Permittee is subject to the emission limits/restrictions as contained in Table 3, 3A and 3 B below:

#### **I. EMISSIONS**

The operation of the combustion turbine on natural gas or distillate oil result in emissions to the ambient air of the following air pollutants for which emission limits have been established;

Particulate Matter-which includes particulate matter less than 10 microns within aerodynamic diameter of PM-10 (PM/PM-10), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Volatile Organic Compounds (VOCs) and Ammonia (NH<sub>3</sub>).

## II. EMISSION LIMITS - Base Load

Base Load is considered 50% load and higher for the combustion turbine while firing natural gas and 75% and higher for the combustion turbine firing distillate oil.

### A. Emission Rates

Emission rates from the facility shall be kept at the lowest practical level at all times, but shall not exceed the emission limitations as specified in Table 3, 3A and 3B.

### B. Limits During Emergency or Malfunction

1. The Permittee shall not be automatically shielded from enforcement action brought for noncompliance with emission limitations specified in this permit as a result of an "emergency" and/or "malfunction". Emergency and malfunction are defined in Table 6 of this permit.
2. An emergency and/or malfunction constitutes an affirmative defense to an action brought for noncompliance with emission limitations if the Permittee demonstrates the affirmative defense of emergency or malfunction through properly signed, contemporaneous operating logs and other relevant evidence that shows that:
  - a) An emergency or malfunction occurred and that the cause(s) of the emergency or malfunction can be identified;
  - b) The facility was at the time being properly operated;
  - c) During the period of the emergency or malfunction, the Permittee took all reasonable steps as expeditiously as possible to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit; and
  - d) The Permittee submitted notice of the emergency or malfunction to the Department in writing within two (2) business days of the emergency or malfunction. The written notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, an estimate of the quantity of emissions released as a result of the emergency or malfunction and any corrective actions taken.
3. In any enforcement proceeding, the Permittee has the burden of proof in establishing the occurrence of an emergency or malfunction.

4. If an emergency episode requires immediate notification to any government agencies, the Permittee shall make timely notification to the appropriate parties as required by law.
5. The Permittee shall not be shielded from enforcement for any emission exceedance, which would result in a predicted exceedance of any health based air quality standards.

### III. EMISSION LIMITS – Startup and Shutdown

The Permittee shall allow the combustion turbine to operate at less than 50 percent power when operating on natural gas and at less than 75 percent power when operating on distillate oil only during periods of start-ups and shutdowns as defined herein.

A “**hot/warm start**” is defined as the time to achieve emissions compliance representative of steady-state operation at emission rates not to exceed those listed in Table 3 and 3B at minimum steady state operation (i.e., nominal 50 percent load when operating on natural gas and nominal 75 percent load when operating on distillate oil) (a) with the combustion turbine offline for 24 hours or less (i.e., when the combustion turbine has had more than 120 minutes flame time in last 24 hours), or (b) when switching fuel from natural gas to distillate oil while the facility is operational. A “hot/warm start” operation shall not exceed 180 minutes except as provided in the following sentence. The hot/warm start period may be extended for no more than an additional 180 minutes (“Extended Hot/Warm Start”), provided that the additional time is minimized in accordance with prudent operational and maintenance practices. The combustion turbine must be in stable operation and all emission levels in Table 3A (for operation on natural gas) must be in compliance during the Extended Hot/Warm Start. Should the hot/warm start be extended, the Permittee will report the extension and the reasons for it in accordance with the reporting requirements of Table 6.B.5 of this Approval.

A “**cold start**” is defined as the time to achieve emissions compliance representative of steady-state operation at emission rates not to exceed those listed in Tables 3 and 3B at minimum steady state operation (i.e., nominal 50 percent load when operating on natural gas and nominal 75 percent load when operating on distillate oil) with the combustion turbine having been off-line for a period greater than 24 hours.

If the combustion turbine has had less than 120 minutes of flame time in the 24 hours preceding a start, it is considered “off line” over that 24 hour period and the start will be considered a cold start. A “cold start” operation shall not exceed 240 minutes except as provided in the following sentence. The cold start period may be extended for no more than an additional 240 minutes (“Extended Cold Start”) provided that the additional time is minimized in accordance with prudent operational and maintenance practices.

The combustion turbine must be in stable operation and all emission levels in Table 3A (for operation on natural gas) must be in compliance during the Extended Cold Start. Should the cold start be extended, the Permittee will report the extension and the reasons for it in accordance with the reporting requirements of Table 6.B.5 of this Approval.

A "**shutdown**" is defined as the time from emissions compliance representative of steady-state operation at emission rates not to exceed those listed in Table 3 and 3B at 50 percent nominal load when operating on natural gas and 75 percent load when operating on distillate oil to "no flame". A "shutdown" operation shall not exceed 120 minutes.

Should any start or shutdown be extended beyond the time lines allotted for an Extended Hot/Warm or Extended Cold Start herein, the Permittee shall report the extension and the reasons for said extension as a deviation in operations and in accordance with the reporting requirements of Section 25 of this Permit.

The Permittee shall comply with the start-up and shutdown emission limits as specified within Table 3A when operating on Natural Gas.

Emission limits within Table 3A apply to both start-up and shutdown operations when operating on natural gas unless otherwise specified.

The Permittee shall operate EU #1 in compliance with the "lb/MMBtu", "PPM", and "lb/hr" emission limits based on a one-hour block average and annual emission based on a rolling 12-month total presented in Table 3 and 3B respectively.

Periods of extended startup that meet the requirements of Section III above are not considered permit deviations from allowable operating conditions.

The emission limits in Table 3 below (lb/hr, lb/MMBtu, and PPMVD) are based on one (1) hour block averages.

Table 3					
Natural Gas					Distillate Oil
Pollutant	Applicable Regulation or Plan Approval	100% Load	75% Load	50% Load	All loads between 100% and 75% Load
NOx lb/hr	TR# W019914	37.0	29.8	22.0	99.4
CO lb/hr	TR# W019914	28.7	23.2	119.7	37.9
VOC lb/hr	TR# W019914	3.7	3.0	13.2	26.9
PM lb/hr	TR# W019914	14.4	11.6	8.6	142.1

Table 3					
Natural Gas					Distillate Oil
Pollutant	Applicable Regulation or Plan Approval	100% Load	75% Load	50% Load	All loads between 100% and 75% Load
SO <sub>2</sub> lb/hr	TR# W019914	6.6	5.3	3.9	148.3
NH <sub>3</sub> lb/hr	TR# W019914	39.1	31.5	23.3	40.8
NO <sub>x</sub> lb/MMBtu	TR# W019914	0.013	0.013	0.013	0.035
CO lb/MMBtu	TR# W019914	0.01	0.01	0.07	0.017
VOC lb/MMBtu	TR# W019914	0.001	0.001	0.010	0.010
PM lb/MMBtu	TR# W019914	0.005	0.005	0.005	0.050
SO <sub>2</sub> lb/MMBtu	TR# W019914	0.002	0.002	0.002	0.052
NH <sub>3</sub> lb/MMBtu	TR# W019914	0.014	0.014	0.014	0.014
NO <sub>x</sub> PPMVD@ 15% O <sub>2</sub>	TR# W019914	3.5	3.5	3.5	9.0
CO PPMVD @ 15% O <sub>2</sub>	TR# W019914	4.0	4.0	30.0	7.0
VOC PPMVD @15% O <sub>2</sub>	TR# W019914	3.0	3.0	8.1	7.0
NH <sub>3</sub> PPMVD @ 15% O <sub>2</sub>	TR# W019914	10.0	10.0	10.0	10.0
NO <sub>x</sub>	TR# W019914 40 CFR 60 Subpart GG	See Special Terms and Conditions, Section 5, Table 8 (applicable regulation; 310 CMR 7.27/7.28).			
SO <sub>2</sub>	TR# W019914 40 CFR Part 72	See Special Terms and Conditions, Section 5, Table 8 (applicable regulation; 310 CMR 7.22-Acid Rain).			
Opacity	TR# W019914	Opacity shall not exceed 10% during all modes of operation including startups and shutdowns.			

Note: Pound/hour emission limits when operating on natural gas at intermediate loads are calculated based on linear interpolation of lb/hr permit limits. Load % refers to operational load (i.e.: firing rate) of the combustion turbine.

The emission limits for EU #1 for startup and shutdown and total tons per 12 month rolling total are presented in the table 3A and 3B below.



Table 3A	
Natural Gas Fired	
Pollutant	START-UP and SHUTDOWN EMISSION LIMITS
PM	0.05 lb/MMBtu
CO	3600 lb/180 minutes – startup
CO	600 lb/120 minutes - shutdown
NH <sub>3</sub>	300 lb/ 180 minutes - startup
NH <sub>3</sub>	300 lb/120 minutes - shutdown
NO <sub>x</sub>	900 lb/180 minutes - startup
NO <sub>x</sub>	900 lb/120 minutes - shutdown
OPACITY	Opacity shall not exceed 10% during all modes of startup and shutdown operations.
SMOKE	Per requirements of 310 CMR 7.06(1)(a)

Table 3B	
Annual Emissions- 12 Month rolling total (Tons Per Year) <sup>(1)</sup>	
Particulate Matter	113 <sup>(2)</sup> tons per year
Sulfur Dioxide	77 tons per year
Nitrogen Oxides	170 <sup>(3)</sup> tons per year
Carbon Monoxide	475 tons per year
Volatile Organic Compounds	49 <sup>(4)</sup> tons per year
Sulfuric Acid Mist	29 tons per year
Ammonia	153 <sup>(5)</sup> tons per year
RESTRICTIONS	
A. The Permittee shall ensure that the distillate oil sulfur content does not exceed 0.05% by weight by monitoring as required in Table 4 of the Permit.	
B. The Permittee shall not exceed 720 hours of distillate oil firing per 12-month rolling total.	
C. The Permittee shall ensure that the natural gas sulfur content does not exceed 0.8 grains per 100 ft <sup>3</sup> (25.4 PPM) by monitoring as required in Table 4 of this permit.	

<sup>1</sup> Annual emissions are facility-wide emissions, and are based on a rolling 12-month total including startups and shutdowns.

<sup>2</sup> Includes 9.8 tpy emitted from cooling tower drift and 0.6 tons per year from miscellaneous sources.

<sup>3</sup> Includes 3.0 tpy from an emergency diesel fire pump.

<sup>4</sup> Includes 1.0 tpy emitted from miscellaneous sources.

<sup>5</sup> Includes breathing and working losses of the ammonia storage tanks.

## B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00: Appendix C (9) and (10) and a requirement of the final plan approval letter (Transmittal #130921(A) dated March 16, 2005).

Table 4	
EU #	MONITORING/TESTING REQUIREMENTS
EU #1	<p>In accordance with the provisions of the Final 7.02 Air Quality Plan Approval Transmittal #130921(A) the Permittee is subject to the terms and conditions presented in Table 4 and to other terms and conditions referenced herein.</p> <p>I. MONITORING REQUIREMENTS:</p> <ul style="list-style-type: none"> <li>A. The Permittee installed, calibrated, tested and operates a data acquisition system(s) (DAS) and continuous emission monitoring system (CEMS) to measure and record Oxygen (O<sub>2</sub>), Oxides of Nitrogen (NO<sub>x</sub>), Carbon Monoxide (CO), Opacity and Ammonia (NH<sub>3</sub>).</li> <li>B. The Permittee shall ensure that the CEMS complies with Department approved performance and location specifications. Notwithstanding the requirements of 40 CFR 60 Subpart GG the equipment shall conform with the EPA monitoring specifications in 40 CFR Part 60.13 and 40 CFR Part 60 Appendices B and F, and all applicable portions of 40 CFR Parts 72 and 75.</li> <li>C. The Permittee shall use and maintain its CEMS as a "direct-compliance" monitor to measure NO<sub>x</sub>, CO, O<sub>2</sub> and NH<sub>3</sub>. "Direct-compliance" monitors generate data that legally documents the compliance status of a source. The Department shall utilize the data generated by the "direct-compliance" monitors; DEP recognized emission testing or other credible evidence for compliance and enforcement purposes.</li> <li>D. The Permittee shall comply with all the applicable monitoring requirements contained in 40 CFR Parts 72 and 75 (Acid Rain Program), and 310 CMR 7.27 and 310 CMR 7.28 (NO<sub>x</sub> Budget Rules).</li> <li>E. The Permittee shall equip the CEMS with audible and visible alarms to activate when emissions exceed the limits in Table 3 of this operating permit.</li> <li>F. The Permittee shall operate each CEM at all times except for periods of CEM calibration checks, zero and span adjustments, preventive maintenance, and periods of malfunction. During startup mode at loads below 20% rate and only when the emission rate exceeds the measurement range of the approved monitoring equipment the following formulas shall apply for determining emission rates: <math display="block">\text{NO}_x \text{ lb/hr} = -0002x^4 + 0.017x^3 + -0.3669x^2 + 4.3247x + 109.08</math> <math display="block">\text{CO lb/hr} = -2.495x^2 + 198.95x + 2260</math> <p>(where x = the load %)</p> </li> <li>G. The Permittee shall obtain and record emission data from each CEM for at least 75% of the Emission Unit operating hours per day, for at least 84% of the Emission Unit operating hours per month, and for at least 95% of the Emission Unit operating hours per quarter.</li> <li>H. All periods of excess emissions, even if attributable to an emergency/malfunction, startup/shutdown or equipment cleaning, shall be quantified and included in the determination of annual emissions and compliance with the annual emission limits as stated in Table 3B of this operating permit.</li> </ul>

Table 4 continued	
EU #	MONITORING/TESTING REQUIREMENTS
EU #1	<p>I. The Permittee shall demonstrate continuous compliance with the VOC emission limits (short-term and annual) contained herein by direct mathematical relationship with CO emissions as determined for the facility.</p> <ol style="list-style-type: none"> <li>1. Any period of excess emission of CO shall count as a period of excess emission of VOC, and the excess emission of VOC shall be accumulated towards the 49 tons per year annual emission limitation for VOC.</li> <li>2. For compliance purposes and to account for total emissions, if the combustion turbine is operating below 50% load on natural gas, the VOC emissions shall be considered as occurring at the rate determined in the initial stack test.</li> <li>3. If the combustion turbine is operating at 50% load or greater on natural gas, and if CO emissions are below the CO emission limit at the given combustion turbine operating conditions, the VOC emissions shall be considered as meeting the emission limits contained in Table 3 of this operating permit.</li> <li>4. If the combustion turbine is operating at 50% load or greater, and if CO emissions are above the CO emission limit at the given combustion turbine operating conditions, the VOC emissions shall be considered as occurring at a rate determined by the equation:  <math display="block">\text{VOC}_{\text{actual}} = \text{VOC}_{\text{limit}} (\text{CO}_{\text{actual}} / \text{CO}_{\text{limit}}).</math></li> </ol> <p>J. The Permittee shall monitor and record the Sulfur and Nitrogen content in natural gas pursuant to the custom fuel monitoring schedule issued for the facility by the USEPA on May 11, 2000, in accordance with 40 CFR Part 60, Subpart GG 60.334(b)(2).</p> <p>K. The Permittee shall monitor the Sulfur and Nitrogen content of distillate oil on each occasion that distillate oil is transferred to the bulk storage tank pursuant to 40 CFR Part 60, Subpart GG 60.334(b)(1), pursuant to the custom fuel monitoring schedule issued for the facility by the USEPA on May 11, 2000, in accordance with 40 CFR Part 60, Subpart GG 60.334(b)(2).</p> <p>L. The Permittee shall operate a continuous monitoring system to record the fuel consumption and the ratio of water-to-fuel being fired in the combustion turbine, pursuant to the custom monitoring arrangements approved by the U.S. EPA on May 11, 2000. The monitoring system shall be accurate to within <math>\pm 5\%</math> in accordance with 40 CFR 60.334(a).</p> <p>M. The Permittee shall operate continuous monitors and alarm systems to monitor temperature at the inlet to the SCR and CO catalysts.</p> <p>N. The Permittee developed a quality control/quality assurance (QA/QC) program for the long-term operation of the CEMS which conforms to 40 CFR Part 60, Appendix F, all applicable portions of 40 CFR Parts 72 and 75, and 310 CMR 7.27 (NO<sub>x</sub> Budget Rules). The Department previously approved the initial QA/QC program. Any subsequent changes may only be done with approval from the Department.</p>

Table 4 continued	
EU #	MONITORING/TESTING REQUIREMENTS
EU #1	<p>O. The Permittee shall maintain on-site for the CEMS an adequate supply of spare parts to maintain the online line availability and data capture requirements.</p> <p>P. Compliance with the allowable opacity limits shall be determined in accordance with EPA Method 9, as specified in 40 CFR 60, Appendix A.</p> <p>Q. In accordance with 310 CMR 7.28(11)(a)(1), any person who owns, leases, operates or controls a budget unit that commences operation before January 1, 2002 shall install, operate and successfully complete all applicable certification testing requirements for monitoring heat input, NO<sub>x</sub> emission rate and NO<sub>x</sub> mass emissions pursuant to the requirements of 40 CFR Part 75 Subpart H by May 1, 2002.</p> <p>R. In accordance with 310 CMR 7.28(11)(a)(4), all monitoring systems are subject to initial performance testing and periodic calibration, accuracy testing and quality assurance/quality control testing as specified in 40 CFR Part 75 Subpart H.</p> <p>S. As required by 310 CMR 7.28(11)(a)(5), during a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.28, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR 75.70(f). The applicable missing data procedures are specified in 40 CFR Part 75 for NO<sub>x</sub> emission rate (in lb/MMBtu), heat input, stack gas volumetric flow rate, oil density, GCV or fuel flow rate.</p> <p>T. In accordance with 310 CMR 7.28(11)(a)(6), NO<sub>x</sub> emissions data must be reported to the NO<sub>x</sub> Emissions Tracking System (NETS) in accordance with 310 CMR 7.28(13).</p> <p>U. In accordance with 310 CMR 7.28(11)(a)(7), budget units must report data pursuant to the requirements of 310 CMR 7.28(11) for every hour.</p> <p>V. In accordance with 310 CMR 7.28(11)(b), any person who owns, leases, operates or controls a budget unit subject to 310 CMR 7.28 must comply with the notification requirements in 40 CFR 75.61, where applicable.</p> <p>W. The Permittee shall monitor the operations for the entire facility such that necessary information is available for the preparation for the annual Source Registration/Emission Statement Forms as required by 310 CMR 7.12.</p> <p>X. The Permittee shall monitor the hours of fuel oil used in order to comply with the fuel usage restriction.</p>

Table 4 continued	
EU #	MONITORING/TESTING REQUIREMENTS
EU #1	<p>II. TESTING REQUIREMENTS:</p> <p>A. <u>Emission Testing</u></p> <ol style="list-style-type: none"> <li>1. The facility must be constructed to accommodate the emissions testing requirements contained herein. All emissions testing will be conducted in accordance with the Department's "Guidelines for Source Emissions Testing" and in accordance with the Environmental Protection Agency tests as specified in the 40 CFR Part 60, Appendix A, 40 CFR Part 60 Subpart GG, 40 CFR Parts 72 and 75, or by another method which has been correlated to the above method to the satisfaction of the Department.</li> <li>2. If testing is requested by the Department the Permittee must obtain approval of the emission testing protocol. A detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for such tests must be submitted to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, 627 Main Street, Worcester, Massachusetts 90 days prior to testing of the facility.</li> <li>3. Preliminary results of the emission testing must be submitted within 30 days of completion to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, 627 Main Street, Worcester, Massachusetts.</li> <li>4. A final test report must be submitted in writing and in digital format within 60 days of completion to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, 627 Main Street, Worcester, Massachusetts, 01608.</li> <li>5. In accordance with 310 CMR 7.13 the Department may require testing for any pollutants if deemed necessary to ascertain the mass emission rates and relationship to equipment design and operation. The Permittee shall conduct stack testing when the Department has determined that such stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisions. Such stack testing shall be: <ol style="list-style-type: none"> <li>a) Conducted by a person knowledgeable in stack testing, and</li> <li>b) Conducted in accordance with procedures contained in a test protocol which has been approved by the Department, and</li> <li>c) In the presence of a representative of the Department when such is deemed necessary in accordance with 310 CMR 7.13(1).</li> </ol> </li> </ol>

Table 4 continued

EU#	MONITORING/TESTING REQUIREMENTS																																
EU #1	<p>6. The Permittee shall comply with the test methods noted in the Table below in accordance with requirements contained in 40 CFR Parts 72 and 75, 40 CFR Part 60, and 310 CMR 7.27.</p> <table> <tr> <th>POLLUTANT</th><th>TEST METHOD</th></tr> <tr> <td>NO<sub>x</sub></td><td>Method 20</td></tr> <tr> <td>CO</td><td>Method 10 (gas filter (GFC) correlation method)</td></tr> <tr> <td>VOC</td><td>Methods 25A and 18</td></tr> <tr> <td>Opacity</td><td>Method 9</td></tr> <tr> <td>SO<sub>2</sub></td><td>Method 20 (fuel test option)</td></tr> <tr> <td>PM</td><td>Method 5</td></tr> <tr> <td>NH<sub>3</sub></td><td>As approved by the Department of Environmental Protection</td></tr> </table> <p>B. <u>Compliance Testing</u></p> <p>1. The Permittee shall conduct compliance tests to demonstrate compliance with the emission limits (lb/hr), lb/MMBtu, PPMVD, and Opacity as specified in Table 3 for the following pollutants as listed in table below as determined necessary by the Department.</p> <table> <tr> <th>NATURAL GAS FIRING*</th><th>DISTILLATE OIL FIRING**</th></tr> <tr> <td>Nitrogen Oxides</td><td>Nitrogen Oxides</td></tr> <tr> <td>Carbon Monoxide</td><td>Carbon Monoxide</td></tr> <tr> <td>Volatile Organic Compounds</td><td>Volatile Organic Compounds</td></tr> <tr> <td>Ammonia</td><td>Ammonia</td></tr> <tr> <td>Particulate Matter</td><td>Particulate Matter</td></tr> <tr> <td>Opacity</td><td>Sulfuric Acid Mist</td></tr> <tr> <td></td><td>Opacity</td></tr> </table> <p>* Represents testing at 50%, 75% and 100% base load.</p> <p>** Represents testing at 75% and 100% base load.</p>	POLLUTANT	TEST METHOD	NO <sub>x</sub>	Method 20	CO	Method 10 (gas filter (GFC) correlation method)	VOC	Methods 25A and 18	Opacity	Method 9	SO <sub>2</sub>	Method 20 (fuel test option)	PM	Method 5	NH <sub>3</sub>	As approved by the Department of Environmental Protection	NATURAL GAS FIRING*	DISTILLATE OIL FIRING**	Nitrogen Oxides	Nitrogen Oxides	Carbon Monoxide	Carbon Monoxide	Volatile Organic Compounds	Volatile Organic Compounds	Ammonia	Ammonia	Particulate Matter	Particulate Matter	Opacity	Sulfuric Acid Mist		Opacity
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Table 4 continued	
EU#	MONITORING/TESTING REQUIREMENTS
EU #1	<p>2. The Permittee shall have the right to obtain lower VOC emission limits on the basis of the stack test results. The VOC limits contained in Tables 3 of this operating permit will be revised consistent with the stack test results, if so requested by the Permittee and/or as required by the Department.</p> <p>3. The Department shall not lower the VOC emission limitation unless it determines that it would be practicable for this facility to meet the new rate in operation with an adequate margin for degradation.</p> <p>C. <u>Fuel Utilization Facility Testing</u></p> <p>In accordance with 310 CMR 7.04(4)(a), the Permittee shall have the fuel utilization facility (turbine combustor) inspected and maintained in accordance with the manufacturer's recommendations and tested for efficient operation at least once in each calendar year. The results of said inspection, maintenance and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near the permitted equipment.</p> <p>D. <u>Stratification Testing</u></p> <p>1. The Permittee has conducted initial stratification testing and shall conduct annual stratification in accordance with EPA Method 20 for NO<sub>x</sub> as well as O<sub>2</sub>. The purpose of these tests shall be to document a representative CEM sampling location for NO<sub>x</sub> in accordance with annual RATA testing as well as to satisfy Method 20 initial testing requirements. The requirement to perform an annual stratification test for the frequency of this testing may be changed by the Department, upon request by the Permittee, if in the opinion of the Department of Environmental Protection such testing is no longer needed.</p> <p>2. Emission testing to demonstrate compliance with emission limits specified in Table 3 shall be in accordance with EPA approved reference test methods unless otherwise approved by EPA and the Department or unless otherwise specified.</p>

Table 5	
EU#	RECORD KEEPING REQUIREMENTS
EU #1	<p>In accordance with the provisions of the Final 7.02 Air Quality Plan Approval Transmittal# 130921(A) the Permittee is subject to the terms and conditions presented in Table 5 and to other terms and conditions referenced herein.</p> <p>A. A record keeping system shall be established and maintained on site by the Permittee. All records shall be maintained up-to-date such that year-to-date information is readily available for Department examination. Record keeping shall, at a minimum, include:</p>

Table 5 continued	
EU #1	RECORD KEEPING REQUIREMENTS
EU #1	<ol style="list-style-type: none"> <li>1. Compliance records - Compliance records sufficient to demonstrate that emissions have not exceeded what is allowed by this Approval. Such records may include daily production records, raw material usage rates, fuel purchase receipts, emissions test results, monitoring equipment data and reports.</li> <li>2. Maintenance activities – A record of routine maintenance activities performed on the emission unit, control equipment and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.</li> <li>3. Malfunctions – A record of all malfunctions on the emission unit, control device and monitoring equipment including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the emission unit returned to compliance. Records shall include a log to record problems, upsets or failures associated with the emission control system, CEMS, COMS, or the ammonia handling system.</li> </ol> <p>B. Records retention time – (State Only Requirement)</p> <ol style="list-style-type: none"> <li>1. The Permittee shall <u>maintain for the life</u> of the facility all operating and monitoring records and logs.</li> <li>2. The Permittee shall make available to the Department for inspection upon request the five most recent years of data.</li> <li>3. The Permittee shall maintain on-site necessary permanent records of output from all continuous emission monitors for flue gas emissions, fuel consumption, ratio of water to fuel, SCR and CO control system inlet temperatures, and turbine inlet and ambient temperatures, and shall make these records available to the Department on request.</li> </ol> <p>C. Fuel records</p> <ol style="list-style-type: none"> <li>1. The Permittee shall maintain records on natural gas to record the sulfur content twice annually, at the frequency required pursuant to the custom fuel monitoring schedule issued for the facility by the USEPA on May 11, 2000, in accordance with 40 CFR Part 60, Subpart GG 60.334(b)(2).</li> <li>2. The Permittee shall maintain a written log to record each period that distillate oil is fired in the combustion turbine. The log shall indicate the date, duration of firing, amount of oil fired, sulfur and nitrogen content and name of the operator making the entry.</li> <li>3. The Permittee shall maintain the sulfur and nitrogen content in distillate fuel oil.</li> </ol> <p>D. 40 CFR - The Permittee shall comply with all applicable record keeping requirements contained in 40 CFR Parts 72, 73, 75 and 77, 40 CFR Part 60, 310 CMR 7.27 and 310 CMR 7.28</p>



Table 5 continued	
EU#	RECORD KEEPING REQUIREMENTS
EU #1	<p>E. In accordance with 310 CMR 7.28(8)(e), information on the Authorized Account Representative (AAR) Form must be kept current.</p> <p>F. As required by 310 CMR 7.28(12), any person who owns, leases, operates or controls a budget unit must keep all measurements, data, reports and other information required by 310 CMR 7.28 for five years, or any other period consistent with the budget unit's operating permit</p> <p>G. The Permittee shall maintain sufficient records of its operations and monitoring information for the preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.</p> <p>H. In accordance with 7.04(4)(a) the results of said inspection, maintenance and testing and the dated upon which it was performed shall be recorded and posted conspicuously on or near the facility.</p>

Table 6	
EU #	REPORTING REQUIREMENTS
EU #1	<p>In accordance with the provisions of the Final 7.02 Air Quality Plan Approval Transmittal# 130921(A) the Permittee is subject to the terms and conditions presented in Table 6 and to other terms and conditions referenced herein.</p> <p>A. <u>Notice of Emergency or Malfunction</u></p> <ol style="list-style-type: none"> <li>The Permittee shall provide notice of an emergency or malfunction to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, Compliance &amp; Enforcement Section within four (4) hours (or as soon as reasonably practical) and in writing within two (2) days of the discovery of the emergency or malfunction. Notice shall be made when the facility has: <ol style="list-style-type: none"> <li>Caused emissions to the ambient air that exceed any emission limits including noise limits contained herein; or</li> <li>Caused the release or the threat of a release of ammonia, and/or upsets or malfunctions to the ammonia handling or delivery systems; or</li> <li>Caused a condition of air pollution.</li> </ol> </li> <li>If the initial notice was not provided within four (4) hours, then the Permittee shall have the burden of establishing that the initial notice was provided as soon as reasonably practical in any subsequent enforcement action. The Permittee shall also notify the local Boards of Health in the Towns of Charlton and Southbridge as soon as reasonably practical of the emergency or malfunction and shall copy these Boards of any written notice made to the Department.</li> </ol>

Table 6	
EU #	REPORTING REQUIREMENTS
EU #1	<p>3. The written notice must contain a description of the emergency or malfunction, any steps taken to mitigate emissions, an estimate of the quantity of emissions released as a result of the emergency or malfunction and any corrective actions taken. The Permittee must comply with all notification procedures required under M.G.L. c. 21E, Spill Notification Regulations.</p> <p><b>“Emergency”</b> means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of these things.</p> <p><b>“Malfunction,”</b> means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.</p> <p>4. The reporting requirements of this permit for an emergency or malfunction do not supersede, limit, or make inapplicable any reporting obligation under federal law, including but not limited to 42 U.S.C. sections 9603 or 11004.</p> <p><b>B. <u>Quarterly Reports</u></b></p> <p>The Permittee shall submit a Quarterly report in writing and in digital format, as supplied to the Permittee, to the Department of Environmental Protection, Central Regional Office, Bureau of Waste Prevention, 627 Main Street, Worcester, Massachusetts, 01608. The report will be submitted by the end of the following month and will contain at least the following information:</p> <ol style="list-style-type: none"> <li>1. CEMS and COM periods of excess emissions in a format acceptable to the Department.</li> <li>2. For each period of excess emissions or excursions from allowable operating conditions, the Permittee shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdowns, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS.</li> <li>3. A tabulation of periods of operation (dispatch).</li> <li>4. Each period during which there was any firing of distillate oil. The period will include the date of oil firing, the amount of oil fired, the reasons and duration of firing. This report will summarize year-to-date the number of hours of firing distillate oil and the total amount of distillate oil burned.</li> <li>5. A tabulation of each extended startup with the reason for the extension. Periods of extended startup that meet the requirements of Section 4.A.III are not considered permit deviations from allowable operating conditions.</li> </ol>

Table 6	
EU #	REPORTING REQUIREMENTS
EU #1	<p>C. <u>NOx Budget</u></p> <p>The Permittee shall comply with all applicable reporting requirements contained in 40 CFR Parts 72, 73, 75 and 77; 40 CFR 60, and 310 CMR 7.28.</p> <p>As required by 310 CMR 7.28(13)(a)(1), for units commencing operation prior to May 1, 2002, the AAR must submit quarterly reports for each calendar quarter beginning with: the earlier of the calendar quarter that includes the date of initial certification or, if the certification tests are not completed by May 1, 2002, the partial calendar quarter from May 1, 2002 through June 30, 2002. Data shall be recorded and reported from the earlier of the date and hour corresponding to the date and hour of certification or the first hour on May 1, 2002.</p> <p>In accordance with 310 CMR 7.28(13)(b), the AAR for each budget unit using CEMS must submit to the Administrator all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75 Subpart H and 40 CFR 75.64.</p> <p>In accordance with 310 CMR 7.28(13)(c)(1), for units subject to an Acid Rain Emissions limitation, quarterly reports shall include all of the data and information required in 40 CFR Part 75 Subpart H for each NOx Budget unit (or group of units using a common stack) as well as information required in 40 CFR Part 75 Subpart G.</p> <p>In accordance with the requirements of 310 CMR 7.28(13), NOx emissions data must be reported pursuant to the requirements of 310 CMR 7.28(11)(a)(6), (a)(7) and (b).</p> <p>NO<sub>x</sub> emissions data should be reported directly to EPA's National Computer Center mainframe computer in a method acceptable to EPA. The deadline to submit data to EPA is 30 days after the end of each calendar quarter.</p> <p>In accordance with 310 CMR 7.28(13)(e), by October 31 of each year, any person who owns, leases, operates or controls a new or existing budget unit must report to the Department each facility's metered net electric and useful steam output for that year's control period. Net electric output must be reported in megawatt-hours, and steam output in MMBtu. If data for steam output is not available, the person may report heat input providing useful steam output as a surrogate for steam output. (See Table 8, Special Terms and Conditions, <u>310 CMR 7.28</u> Item # 4).</p> <p>In accordance with 310 CMR 7.28(15), for each control period, the AAR for the budget unit shall submit by November 30 of each year, an annual compliance certification report to the Department and the NATS Administrator. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.28(15)(c) 1 through 8.</p> <p>Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to the DEP Lawrence office at DEP, Wall Experiment Station, 37 Shattuck Street, Lawrence, MA 01843-1398 Attn: Source Monitoring Section, and to the DEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).</p>

Table 6	
EU #	REPORTING REQUIREMENTS
EU #1	<p>A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous DEP protocol comments to the satisfaction of the DEP and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.</p> <p>A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to the DEP Lawrence within 45 days of completion of tests. In lieu of submitting the full test reports to DEP Regional offices, the data assessment summary reports required by 40 CFR 60 Appendix F Procedure 1 Section 7 must be submitted to DEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).</p> <p>Results from QA daily Calibrations, quarterly Linearity checks and 40 CFR Part 75 Appendix D Fuel Flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.</p> <p><b>D. <u>Registration</u></b></p> <ol style="list-style-type: none"> <li>1. The Permittee shall submit a Source Registration/Emission Statement form to the Department on an annual basis as required by 310 CMR 7.12(2).</li> <li>2. In accordance with 310 CMR 7.12(3), the facility shall register on a form obtained from the Department such information as the Department may specify including: <ol style="list-style-type: none"> <li>a. A description of the facility, including a description of process and combustion equipment, a description of facility operating hours and operating schedule, a description of all raw materials and fuels used at the facility.</li> <li>b. Information required by 310 CMR 7.12(3) shall be submitted pursuant to 310 CMR 7.12(2).</li> </ol> </li> </ol> <p><b>E. <u>Contact DR</u></b></p> <p>The Permittee shall provide the name, location and appropriate contact information [phone number] of the designated representative (DR); to the Town of Charlton; to the Department and to any other person who so requests it. The Permittee shall keep the information pertinent to contacting the DR current at all times.</p> <p><b>F. <u>Records Format</u></b></p> <p>Any records or reports required for submission to the Department in digitized format shall be done in a format usable to the Department.</p>

C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.

D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee is currently not subject to the following requirements, and specifically requested that the following regulations be inserted into Table 7 below.

Table 7	
REGULATION	DESCRIPTION
310 CMR Sec. 7.16	Reduction of Single Occupant Commuter Vehicle Use
42 u.s.c. 7401 Section 112	Hazardous Air Pollutants
42 U.S.C. 7401, Section 112 r	42 U.S.C. 7401, Section 112(r), 40 CFR 68
310 CMR 7.25	Consumer & Commercial Products
40 CFR 82	Protection of the Stratospheric Ozone

5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to the following special terms and conditions in accordance with the Final 7.02 Air Quality Plan Approval Transmittal #130921(A):

Table 8	
SPECIAL TERMS AND CONDITIONS	
A.	<p><u>Fuel of Use Limit</u></p> <ol style="list-style-type: none"><li>1. The Permittee shall operate on natural gas except when natural gas is unavailable, or in the event of the unavailability of natural gas at commercially reasonable prices. The Permittee at its discretion shall be allowed to operate up to 720 hours of distillate oil firing per 12 month rolling total.</li><li>2. The Permittee shall not burn distillate oil during the time period May 1 through September 30 inclusive of any calendar year, except during initial compliance testing, initial plant demonstration and performance testing, periodic readiness testing, or in the event of the unavailability of natural gas at commercially reasonable prices provided it does not exceed the limit of 720 hours.</li></ol>

Table 8 continued

SPECIAL TERMS AND CONDITIONS

B. Training

The Permittee shall properly train all personnel to operate the facility and control equipment in accordance with vendor specifications. All persons responsible for the operation of the ammonia handling and SCR control systems shall sign a statement affirming that they have read and understand the approved standard operating and standard maintenance procedures. This training shall be updated at least once annually.

C. Fifty Percent Power

1. The Permittee shall allow the combustion turbine to operate at less than 50% power on natural gas only during start-ups and shutdowns. Operation at these loads is limited to the limitations as described in Section 4A.III. EMISSION LIMITS – Startup and Shutdown.

D. NO<sub>x</sub> Offsets and Budgets

1. The Permittee shall comply with all applicable operational standards contained in 40 CFR Part 72, 73, 75 and 77, 40 CFR 60, and 310 CMR 7.27 and 7.28.
2. The Permittee shall comply with all provisions of 40 CFR Parts 72, 73, 75 and 77 40 CFR 60, and 310 CMR 6.00-8.00 that are applicable to this facility.
3. The Permittee shall comply with the requirements of Regulation 310 CMR 7.27 and 310 7.28 (NO<sub>x</sub> Budget Rules).

E. Ammonia

1. Aqueous ammonia is used as the reducing agent in the SCR system. The aqueous ammonia mixture is stored on-site in a 20,300-gallon capacity storage tank. In the event of an accidental spill, the aqueous ammonia solution will be contained in a double wall tank. A leak detection system has been installed in the plant control room to monitor the ammonia, in the event of a spill. The Permittee on March 17, 1999 received DEP approval for the double wall storage tank.
2. The Permittee shall maintain, in the facility control room, portable ammonia detectors for use during a spill or atmospheric release.
3. The Permittee shall calibrate the portable ammonia monitors at least once per year or at the frequency recommended by the ammonia detector manufacturer.
4. The Permittee shall maintain high and low level ammonia detectors equipped with an audible alarm in the control room, at the ammonia tanker-unloading pit and near the storage tanks. The high and low alarm set points should be set such as to allow ample margin of error so as to prevent over-filling at the high level and to prevent loss of catalytic control of the exhaust gases at low ammonia supply levels.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

5. The high and low level alarm system shall receive the periodic maintenance, testing and calibration recommended by the manufacturer of the alarm system. The ammonia tank shall be emptied, cleaned and inspected by an appropriately trained individual at the interval recommended by the tank manufacturer.
6. The aqueous ammonia storage tanks shall be equipped with high and low level audible alarm monitors.
7. The Permittee shall store the standard operating and maintenance procedures for the ammonia handling system in a convenient location (control room/technical library) and make them readily available to all employees.

F. NOISE REQUIREMENTS (State Only Requirement)

1. Background

- a. Daytime and nighttime sound measurements were taken at six locations around the site prior to initial permitting. The sound measurements consisted of both A-weighted sound pressure levels and octave band.
- b. Department Policy 90-001 provides that an increase in sound by more than 10 dBA over the existing  $L_{90}$  ambient level, unless otherwise specified, will be considered a violation of the air quality regulations. Additionally, pure tone sounds, defined, as any octave band level, which exceeds the levels in adjacent octave bands by 3 dBA or more, will also be a violation.
- c. The Department may exercise its discretion to allow a sound increase above the 10 dBA guideline despite the use of extensive sound control measures. This may occur when the impact is at an area where residents or other sensitive receptors are not located at the time the permit is issued.
- d. Ambient noise surveys were conducted to characterize the existing sound levels in the site vicinity. In general, background ( $L_{90}$ ) levels (in dBA) averaged from the mid 30s to mid 40s during nighttime hours and from the low-to-high 40s during daytime hours. The Permittee projected that sound caused by the facility would not cause conditions of noise.
- e. Furthermore the Permittee committed to the Energy Facility Siting Board ("EFSB") to levels below the maximums allowed by DEP policy at certain locations.

2. Noise Limits

Noise limits established or implied are based upon property lines and facility equipment layout as of the date of this approval. Any modifications to property line by sale, agreement or other transaction will require the Permittee to seek an amendment to this approval as it may impact noise. The Department reserves the right to require additional noise mitigation measures or such actions as it deems necessary to ensure compliance with the Air Pollution Control Regulations of the Commonwealth.

Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

Notwithstanding the foregoing, the Permittee has proposed the transfer of a parcel of land (25.35 acres) in the northwest corner of the property to the Town Charlton, subject to a noise easement and certain restrictions such as prohibition against residential development of the parcel. The proposed transfer deed provided by the Permittee by letter dated January 23, 2004 is acceptable to the Department and would ensure that the proposed transfer would not contravene any of the provisions of this approval. Provided that the final form of the deed contains such covenants in a form acceptable to the Department, no further amendment of this approval (Transmittal# W019914) shall be required prior to the transfer of the parcel.

The facility was designed, constructed and shall be operated and maintained such that at all times:

- a. No condition of air pollution will be caused by emissions of sound as provided in 310 CMR 7.01;
- b. No sound emissions resulting in noise will occur as provided in 310 CMR 7.10 and the Department's Policy 90-001 and the EFSB committed levels whichever is more restrictive.

3. Sound Measurements

The Permittee conducted a post construction ambient sound measurement survey in accordance with Department procedures/guidelines to verify compliance with this approval. The Department determined that facility noise emissions from that survey complied with the forgoing requirements.

4. Noise Abatement Equipment and Procedures

Noise impacts associated with the operation of the facility are mitigated through the incorporation of a series of design features selected specifically to minimize impacts both at the property boundary and at the nearest residential receptors in all directions. The plant layout was designed to optimize the shielding effects of buildings, a comprehensive analysis of possible mitigation measures was conducted to develop the most practical and effective overall noise abatement design with modeling results indicating that operation of the facility will result in community noise level increases of 10 dBA or less at all noise-sensitive locations. The noise modeling analysis assumed the incorporation of a series of noise abatement technologies that constituted a "baseline" noise mitigation package, as follows:

- Sound absorbing turbine building including 18 gauge siding, four inches of insulation, and low noise fans;
- silencing of air inlets to the combustion turbine;
- silencing baffles in the HRSG stack to attenuate exhaust noise;
- aerodynamically designed low noise fans in the cooling tower; and
- acoustical barrier walls around the HRSG structure composed of siding and insulation.
- special low-noise design transformers



Table 8 continued  
SPECIAL TERMS AND CONDITIONS

5. Response to Noncompliance

- a. Upon receiving information that the facility may be in non-compliance with the provisions of this permit regarding sound emission levels, the Permittee shall take the following immediate actions:
  - 1) Take all reasonable interim steps to eliminate or minimize sound emissions to return to compliance.
  - 2) Investigate immediately the cause of sound emission and develop plan to mitigate sound emission level if deemed in non-compliance.
  - 3) Notify the DEP Bureau of Waste Prevention, Central Regional Office, Compliance & Enforcement Section immediately upon receipt of information and identify proposed plan and schedule to mitigate source.
  - 4) Upon completion of proposed mitigation, the Permittee will submit to the Department a final report of mitigation.
- b. Should noncompliance with this approval or the Department's regulations due to sound emissions from the facility affecting one or more receptors of concern (ROCs) occur despite the interim steps implemented above, the Permittee shall, unless otherwise ordered by the Department, submit within 30 days of receipt of information of noncompliance from the Department or other credible source, whichever is earlier, a sound reduction plan which sets out the additional monitoring and remedial actions it proposes to implement in order to verify a return to compliance, and a schedule for the commencement and completion of each major component of the monitoring and remedial actions.
- c. Except as otherwise ordered by the Department, the schedule for completion of the remedial actions shall not exceed thirty days (30) from the Department's approval of the above plan, or applicable part(s) thereof, unless the Permittee adequately demonstrates that the work cannot be completed within thirty days using its best efforts. In reviewing a best efforts demonstration the Department will not consider delays that could have been reasonably avoided had the facility been designed and constructed in manner to facilitate the timely completion of the proposed remedial actions, including, for example, installation of additional sound reduction equipment, sound containment structures or other sound barriers.

Table 8 continued

**SPECIAL TERMS AND CONDITIONS**

- d. If the remedial actions are not completed in accordance with the schedule established by the Department and there is continuing noncompliance with the sound emission levels established in this permit or in regulation then the Permittee shall, unless otherwise ordered by the Department, modify the operations of the facility in order to return to compliance. Such actions shall include, as necessary, reduction of the facility's operating capacity, restriction of its hours of operations, or suspension of operations. The modifications shall commence on the first day beyond the established completion date and continue until the operator certifies in writing to the Department that all the remedial actions are completed.
- e. Nothing in this permit shall be interpreted to restrict, limit or in anyway impair the Department's authority to institute such administrative or judicial enforcement actions as it deems necessary in response to noncompliance with the terms and provisions of this permit or the Department's regulations.

**G. 310 CMR 7.28**

- 1. EU#1 is subject to the requirements of NO<sub>x</sub> Allowance Program, 310 CMR 7.28. The Department issued an Emission Control Plan (ECP) Phase I & II Combined Emissions Monitoring Approval (Transmittal #W024243) for this facility on June 27, 2002.
- 2. NO<sub>x</sub> Allowance use and transfer must comply with 310 CMR 7.28(10).
- 3. In accordance with 310 CMR 7.28(14), each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO<sub>x</sub> emissions from the budget unit in the current control period.
- 4. Each budget unit shall meter electric and/or steam output in accordance with the approved monitoring methodology contained in Table II and Table III of the ECP Transmittal #W024243.
  - a. In the case where billing meters are used to determine output, no QA/QC activities beyond those already performed are required. To qualify as a billing meter, the measurement device must be used to measure electric or thermal output for commercial billing under a contract. The facility selling the electric or thermal output must have different owners from the owners of the party purchasing the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output.
  - b. In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement. When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.

- c. Output measurement equipment must be tested for accuracy or recalibrated at least once every two years, in accordance with applicable consensus or NIST traceable standards, unless a standard allows for less frequent calibrations or accuracy tests.

H. TITLE IV SULFUR DIOXIDE ALLOWANCES AND MONITORING

1. According to 40 CFR Part 72, the Permittee was designated as a Phase II Acid Rain "New Affected Unit" on January 1, 2000 or 90 days after commencement of activities, whichever comes later, but not after the date the facility declares itself commercial. The application from the Permittee was dated December 30, 1997.
2. The Acid Rain Program effects reductions of SO<sub>2</sub> by allocating a limited number of marketable allowances primarily to existing power plants and by requiring all plants, including new plants that were not allocated allowances, to hold or obtain allowances to offset their actual SO<sub>2</sub> emissions. Allowances are available through the Chicago Board of Trade and other sources and will be secured by the Permittee. The first date the Permittee was required to hold allowances for the facility was January 30, 2001.
3. The Permittee is required to have a designated representative (DR). The DR is the facility representative responsible for submitting required permits, compliance plans, emissions monitoring reports, offset plans, compliance certification, and is the responsible official with regards to all matters under the acid rain program.
4. The Permittee was required to install continuous emissions monitoring system (CEMS) on the unit; the Department issued the approval for the CEMS on August 31, 1999. The CEMS are specified in 40 CFR Part 75 for monitoring SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions as well as opacity and volumetric flow of the flue gas. As an option, EPA allows gas and oil fired facilities to conduct fuel sampling and analysis and fuel flow monitoring in place of SO<sub>2</sub> continuous emission monitoring and flue gas flow monitoring. In addition, pursuant to 40 CFR 75.13, CO<sub>2</sub> emissions may be estimated in accordance with 40 CFR part 75 Appendix G, in lieu of installing a CO<sub>2</sub> CEM.

I. EMISSION OFFSETS AND NON-ATTAINMENT REVIEW

1. The Commonwealth's Air Pollution Control Regulations, 310 CMR 7.00, Appendix A also require LAER and emission offsets for stationary sources with potential NO<sub>x</sub> emissions of 50 tons per year located in areas of serious ozone non-attainment areas.

Table 8 continued

SPECIAL TERMS AND CONDITIONS

2. The entire Commonwealth of Massachusetts, which includes the Town of Charlton, is designated non-attainment for the pollutant ozone ( $O_3$ ). Non-attainment review will apply for this project since potential emissions of Nitrogen Oxides ( $NO_x$ ) are above the "major source" threshold criteria of 50 tons per year, as defined in 310 CMR 7.00 Appendix A.  $NO_x$  emissions are a precursor to the formation of ozone and are therefore regulated pursuant to 310 CMR 7.00, Appendix A. Applicable requirements for the proposed new major stationary source of  $NO_x$  require the source to meet Lowest Achievable Emission Rate (LAER) and obtain emission offsets. The Department has determined that  $NO_x$  LAER for the combustion turbine is an emission limit of 3.5 ppmvd corrected to 15%  $O_2$ .
3. Rules for obtaining offsets in Massachusetts are set forth in regulation 310 CMR 7.00 Appendix A and Appendix B. Offsets for major sources under Appendix A are required at a minimum ratio of 1.2 to 1.
4. The Offset requirement for this facility under New Source Review or Appendix A can be met by withdrawing Massachusetts Department-certified Emission Reduction Credits (ERCs). Emission reduction credits can come from shutting down an existing source, or curtailing its operation, or by "over-controlling" an existing source. In all cases, offsets must be real, surplus, permanent, quantifiable, and federally enforceable. The Department will also accept  $NO_x$  offsets created by qualifying activities in certain other states provided that the Department has executed a memorandum of understanding or some other mutually acceptable agreement with the other state(s). The offsets created in the other state are real, surplus, permanent, quantifiable, and federally enforceable.
5. 310 CMR 7.00: Appendix B (3) applicants must obtain five (5) percent more ERCs than the number of ERCs needed for offsets. This five (5) percent must be held as a "set aside" and neither sold nor used. The Permittee must obtain 1.26 times maximum facility  $NO_x$  emissions or 214 tons of  $NO_x$ . Offsets must be from the same non-attainment area or from another non-attainment area of equal or more severe non-attainment classification (if emissions from this other area contribute to ozone non-attainment in the area where the new project will be constructed).
6. In satisfaction of its obligation in this section, the Permittee has purchased 214 tons of  $NO_x$  offsets from the Nantucket Electric Company ("NEC") as a result of NEC's shutdown of the Nantucket Electric Company's Candle Street generating facility in Nantucket, Massachusetts. NEC's offsets have been officially certified by the DEP as of March 20, 1998 (DEP Approval #4B7058).

Table 8 continued

SPECIAL TERMS AND CONDITIONS

J. Federal Phase II Acid Rain Requirements

1. EU1 is subject to the requirements of Phase II of the Federal Acid Rain Program as defined by EPA in 40 CFR Part 72. Pursuant to 40 CFR Part 72.71, 40 CFR Part 72.73, and 310 CMR 7.00: Appendix C(3)(n), the Department is the permitting authority for Phase II Acid Rain Permits. The Department issued the initial Phase II Acid Rain Permit for Millennium Power on October 25, 2000, and renewed said permit on June 14, 2005. The Department is incorporating the requirements of the Phase II Acid Rain Permit into this Operating Permit. The Phase II Acid Rain Permit will renew with the Operating Permit.
2. Within 60 days of the end of each calendar year, the facility shall hold in its SO<sub>2</sub> allowance account at least one allowance for each ton of SO<sub>2</sub> emitted during the previous year. An allowance is a limited authorization to emit SO<sub>2</sub> in accordance with the Acid Rain Program.
3. If the facility has excess emissions in any calendar year, it shall submit a proposed offset plan as required under 40 CFR Part 77. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.
4. In accordance with 40 CFR Part 73, the Permittee's designated representative may buy, sell, trade, or transfer allowances between EU accounts at any time, except between 60 days of the end of the calendar year and the completion of the annual SO<sub>2</sub> allowance reconciliation for the preceding year(s).
5. The yearly allowance allocations as identified in 40 CFR Part 73, Tables 2, 3, or 4 (as amended) are identified below:

EMISSION UNIT	YEARS				
	5/1/05 – 4/30/06	5/1/06 – 4/30/07	5/1/07 – 4/30/08	5/1/08 – 4/30/09	5/1/09 – 4/30/10
EU 1	0	0	0	0	0

6. Within 60 days of the end of each calendar year the designated representative shall submit to the Department an annual compliance certification report pursuant to 40 CFR Part 72.9 Subpart I.

**6. ALTERNATIVE OPERATING SCENARIOS**

The Permittee did not request alternative operating scenarios in its operating permit application.

**7. EMISSIONS TRADING**

**(a) Intra-facility emission trading**

The facility did not request intra-facility emissions trading in its operating permit application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this permit, may be implemented provided the Permittee notifies The United States Environmental Protection Agency (EPA) and the Department at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2 is required to be submitted to the Department pursuant to 310 CMR 7.00: Appendix B.

**(b) Inter-facility emission trading**

The Permittee did request inter-facility emissions trading in its operating permit application.

All increases in emissions due to emission trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et seq. (the "Act"), and provided for in this permit.

**8. COMPLIANCE SCHEDULE**

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the permit term.

**GENERAL CONDITIONS FOR OPERATING PERMIT**

**9. FEES**

The permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

## **10. COMPLIANCE CERTIFICATION**

All documents submitted to the Department shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>.

### **(a) Annual Compliance Report and Certification**

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the Department and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the Department to determine the compliance status of the source.

### **(b) Semi-Annual Monitoring Summary Report and Certification**

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the Department. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
- ix. any additional information required by the Department to determine the compliance status of the source.

## **11. NONCOMPLIANCE**

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the Department and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

## **12. PERMIT SHIELD**

(a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier approval or permit, the terms and conditions of this permit control.

(b) The Department has determined that the permittee is not currently subject to the requirements listed in Section 4, Table 7.

(c) Nothing in this permit shall alter or affect the following:



- (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
- (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
- (iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

### **13. ENFORCEMENT**

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.02(8)(i), 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A.

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the Department, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

### **14. PERMIT TERM**

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date 5 years after issuance of this permit.

Permit expiration terminates the permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

### **15. PERMIT RENEWAL**

Upon the Department's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the Department on the renewal application.

In the event the Department has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the Department takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

**16. REOPENING FOR CAUSE**

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department and/or EPA. The responsible official of the facility may request that the Department terminate the facility's operating permit for cause. The Department will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the permittee for an operating permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any operating permit condition.

**17. DUTY TO PROVIDE INFORMATION**

Upon the Department's written request, the permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall furnish to the Department copies of records that the permittee is required to retain by this permit.

**18. DUTY TO SUPPLEMENT**

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The permittee shall promptly, on discovery, report to the Department a material error or omission in any records, reports, plans, or other documents previously provided to the Department.

**19. TRANSFER OF OWNERSHIP OR OPERATION**

This permit is not transferable by the permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between current and new permittee, has been submitted to the Department.

**20. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

**21. INSPECTION AND ENTRY**

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized representatives of the Department, and EPA to perform the following:

- (a) enter upon the permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

**22. PERMIT AVAILABILITY**

The permittee shall have available at the facility, at all times, a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the Department or EPA.

**23. SEVERABILITY CLAUSE**

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

### **13. EMERGENCY CONDITIONS**

The permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. In order to use emergency as an affirmative defense to an action brought for noncompliance, the permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was at the time being properly operated;
- (c) during the period of the emergency, the permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and
- (d) the permittee submitted notice of the emergency to the Department within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Bureau of Waste Site Cleanup/Emergency Response immediate notification to the appropriate parties should be made as required by law.

### **14. PERMIT DEVIATION**

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6. of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

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<sup>1</sup> Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

<sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

The Permittee shall report to the Department's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available to the Permittee via the Department's web site, <http://www.state.ma.us/dep/bwp/daqc/aqforms.htm>.

This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

## **15. OPERATIONAL FLEXIBILITY**

The permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit and in compliance with all applicable requirements provided the permittee gives the EPA and the Department written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

**16. MODIFICATIONS**

- a) Administrative Amendments - The permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- (b) Minor Modifications - The permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- (c) Significant Modifications - The permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- (d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

### **APPEAL CONDITIONS FOR OPERATING PERMIT**

This permit is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C (6), with respect to the Department's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the permit is not consistent with applicable laws and regulations. The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to: The Commonwealth of Massachusetts, Department of Environmental Protection, P.O. Box 4062, Boston, MA 02211.

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

## 28. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT

< - Less Than	MADEP – Massachusetts Department of Environmental Protection
≤ - less than or equal to	MMBtu - million British Thermal Units
> - Greater Than	
Lb/hr - Pounds Per Hour	MMBtu/hr – Million British Thermal Units Per Hour
10 <sup>6</sup> BTU/hr - 1,000,000 British Thermal Units per Hour	NA – not applicable
	NH <sub>3</sub> - Ammonia
	NIST – National Institute of Standards and Technology
AQCR - Air Quality Control Region	NO. – number
	NOx – Oxides of Nitrogen
ASTM - American Society of Testing Materials	% - Percent
ABC/TBC – Augmented Backside Cooling/Thermal Barrier Control	PB - Lead
CEM - Continuous Emission Monitor	
CFR- Code of Federal Regulation	PLT ID – Plant Identification
CMR – Code of Massachusetts Regulations	
CO – Carbon Monoxide	Lb/MMBtu – pounds per million British Thermal Units
	PM – Particulate Matter
ECP – Emission Control Plan	PM <sub>10</sub> Particulate Matter less than 10 microns in aerodynamic diameter
EPA - Environmental Protection Agency	PPM – Parts Per Million
EU - Emission Unit	PPMVD – parts per million by volume, dry at 15% O <sub>2</sub>
EU# - Emission Unit Number	PS – Pressure Sensitive
	PM – Particulate Matter
FMF FAC. NO. - Facility Master File Number	PTE – Potential to Emit
RTO – Regenerative Thermal Oxidizer	QA/QC – Quality Assurance/Quality Control
FMF RO NO. - Facility Master File Regulated Object Number	SO <sub>2</sub> – Sulfur Dioxide
FTt <sup>3</sup> /YR – cubic feet per year	SSEIS – Stationary Source Emission Inventory System
GPH – gallons per hour	FT <sup>3</sup> /day - Cubic Feet Per Day
HAPs – Hazardous Air Pollutants	TPM – Tons Per Month
HC – Hydrocarbons	TPY – tons per twelve month rolling total
HHV - Higher Heating Value	
HP – horse power	USC - United States Code
	VOC – Volatile Organic Compounds
	ISO - Represents 59°F, 60% Relative Humidity, 29.92 Inches Mercury At Sea Level

\*Not all abbreviations are present in every Operating Permit